

Remarks

Claims 19-33 and 36-38 are pending in the subject application. Applicants acknowledge that claims 21-24, 27-30 and 36 have been withdrawn from further consideration as being drawn to a non-elected invention. By this Amendment, Applicants have amended claims 19, 25 and 29. Support for the amendments can be found throughout the subject specification and in the claims as originally filed. Entry and consideration of the amendments presented herein is respectfully requested. Accordingly, claims 19-33 and 36-38 are currently before the Examiner (with claims 21-24, 27-30 and 36 standing withdrawn from consideration). Favorable consideration of the pending claims is respectfully requested.

The Office Action objects to the specification because it contains embedded hyperlinks or other forms of browser executable code. Applicants respectfully submit that this issue is moot in view of the amendments made to the specification. Accordingly, reconsideration and withdrawal of the objection is respectfully requested.

Claims 19-20, 25-26, 31-33 and 37-38 are rejected under 35 U.S.C. § 112, second paragraph, as indefinite. Claim 19 is indefinite with regard to the parenthetical letters in the claim. Some of the parenthetical letters are inconsistent with the disclosure. Applicant has amended the claims in an effort to address this issue and it is believed that the inconsistencies noted in the Office Action have been addressed by the amendment made to claim 19. To the extent that the Examiner believes that issues remain to be resolved in this regard, the undersigned requests that he be contacted to discuss language desired by the Examiner.

With respect to the rejection of claim 25, the claims have been amended in a fashion that resolves the alleged non-sequitor of claim 25. To the extent that the Examiner believes that issues remain to be resolved in this regard, the undersigned requests that he be contacted to discuss language desired by the Examiner. Finally, claim 29 has been amended in a manner that resolves the antecedent basis issue noted in the claim. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 112, second paragraph, is respectfully requested.

Claims 19-20, 25-26, 31-33 and 37-38 are rejected under 35 U.S.C. § 103(a) as obvious over Handelsman *et al.* (U.S. Patent No. 7,008,767) in view of Hoch (U.S. Patent No. 6,368,793). Handelsman *et al.* is related to a method for identifying genes from uncultivated microorganisms and

involved in a particular metabolic pathway. This method essentially consists of introducing vectors containing genomic DNA fragments isolated from uncultivated bacteria into a host cell in which said DNA could be expressed. Screening steps to identify a particular phenotype are then carried out with classical techniques well-known by the skilled person (see, for example, Example 1). Applicants further note that Handelsman *et al.* further teach that detection of a desired product is carried out using a variety of detection techniques that are identified at columns 22-31 and that Handelsman *et al.* fail to teach testing in parallel said population of transformed host cells on minimum media containing either one or more substrate(s) {Ai}, or said product {B} as the only source of an element essential to growth; and selecting said host cell(s) capable of growth on a minimum medium containing one or more substrate(s) {Ai} and on a minimum medium containing said product {B} said selected host cell(s) having the phenotype (Ai+ ; B+). Indeed, the Office Action acknowledges that Handelsman *et al.* does not disclose “that the only source of an element essential to growth is either the substrates or the product produced by the biosynthetic pathway”.

In an effort to remedy this defect in the teaching of Handelsman *et al.*, the Office Action argues that Hoch invites the skilled person to screen host cells on growth medium containing the substrate or the product of said metabolic pathway and that it would have been obvious to modify the teachings of Handelsman *et al.* with those of Hoch in order to arrive at the claimed invention. In the method of the present invention, transformed host cells are not screened only on medium containing either the substrates or the product produced by the biosynthetic pathway. Indeed, in the method of the invention, transformed host cells are tested in parallel on a medium containing one of the substrates of the biosynthetic pathway and on another medium containing the product produced by said biosynthetic pathway (see claim 1 step c). As noted above, Handelsman *et al.* do not disclose nor suggest that the screening assay is carried out on a medium containing one of the substrates as the only source of an element essential to growth, and on another medium containing the product produced by the biosynthetic pathway, as the only source of an element essential to growth. The method disclosed in Hoch requires the use of a specific genetically modified strain, a “tester strain”. In said strain, the catabolism of the product of the metabolic pathway of interest is active only in the presence of an inducer. To obtain this “tester strain” in which the catabolism of the product is made conditional, a screening step on a growth medium containing said product as the only source of an

essential element is required. However, the screening of host cells after transformation is carried out in the presence of the substrate and in the presence or the absence of the inducer, but always in the absence of the product. This screening method is detailed in example 3 where it is stated (at column 33, lines 5-9): “This library is then transfected into the tester strain and the resulting pool of transfected cells selected for growth on the source compound (2-KLG in the example) **in the absence of the target compound** (ascorbate in the example) and the presence of the inducer” (emphasis added). Thus, Hoch fails to describe or to suggest the screening of transformed host cells on both a medium containing the product of the metabolic pathway of interest and a medium containing the substrate of said pathway and cannot remedy the deficiencies of Handelsman *et al.*

As the Patent Office is aware, all the claim limitations must be taught or suggested by the prior art in order to establish the *prima facie* obviousness of a claimed invention (*CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) citing *In re Royka*, 490 F.2d 981, 985 (C.C.P.A. 1974)). In this case, the cited combination of references fail to teach each of the elements of the claimed method (*e.g.*, both Hoch and Handelsman *et al.* fail to teach a screening assay that is carried out on a medium containing one of the substrates as the only source of an element essential to growth and on another medium containing the product produced by the biosynthetic pathway as the only source of an element essential to growth). Accordingly, the subject matter of claims 19-20, 25, 26, 31-33, 37 and 38 is not obvious over the cited combination of references and reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

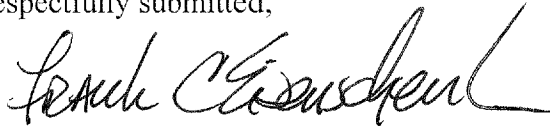
It should be understood that the amendments presented herein have been made solely to expedite prosecution of the subject application to completion and should not be construed as an indication of Applicants’ agreement with or acquiescence in the Examiner’s position. Applicants expressly reserve the right to pursue the invention(s) disclosed in the subject application, including any subject matter canceled or not pursued during prosecution of the subject application, in a related application.

In view of the foregoing remarks and amendments to the claims, Applicants believe that the currently pending claims are in condition for allowance, and such action is respectfully requested.

The Commissioner is hereby authorized to charge any fees under 37 CFR §§1.16 or 1.17 as required by this paper to Deposit Account No. 19-0065.

Applicants invite the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephonic interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,



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